

SHAKING INCUBATOR



Operation Manual



**Model : Orbital Shakers
LGS - 201A**

Labnics Equipment

• Operation Manual •

- Please read this manual carefully before using the instrument.

CAUTION:

Points to ensure a safety

1. You must read the below table before you use the shaker. When you have trouble with the shaker during the operation, check the symbol and following instruction in the manual book.

2. Safety Symbol & Definition

Symbol	Definition
⚠ PRECAUTION	It could result in damage to the shaker
⊗ WARNING	It could result in accident or personal injury and may be damage to the
	instrument



LGS-201 A

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CHAPTER 1. INTRODUCTION:

WARNING : If you make a discretionary alternation of shaker or use the shaker differently from its own functional purpose, it can cause the fault of product or an accident such as electric accident.

The model LGS-201A is a general laboratory shaker with Beltless Direct Drive Mechanism and Brushless D.C. Motor which eliminate the need to inspect and replace belts and motor brushes. Shaker's New Mechanism has succeeded in minimizing size and weight with a height of only 110mm and a weight of only 16kg, and also provides a smooth, quiet and precise shaking action. Speed range to 350 rpm, accuracy within 10 rpm at the top speed and noise production at less than 30DBA at full speed. Operation is simple with a LCD display.

CHAPTER 2. INSTALLATION:

2-1 Unpacking and Inspection

Remove all packing materials and check your **LGS-201A**. If your **LGS-201A** is damaged or you have trouble with the shaker, do not try to use or to repair it by yourself.

2-2 Preparation

Placement

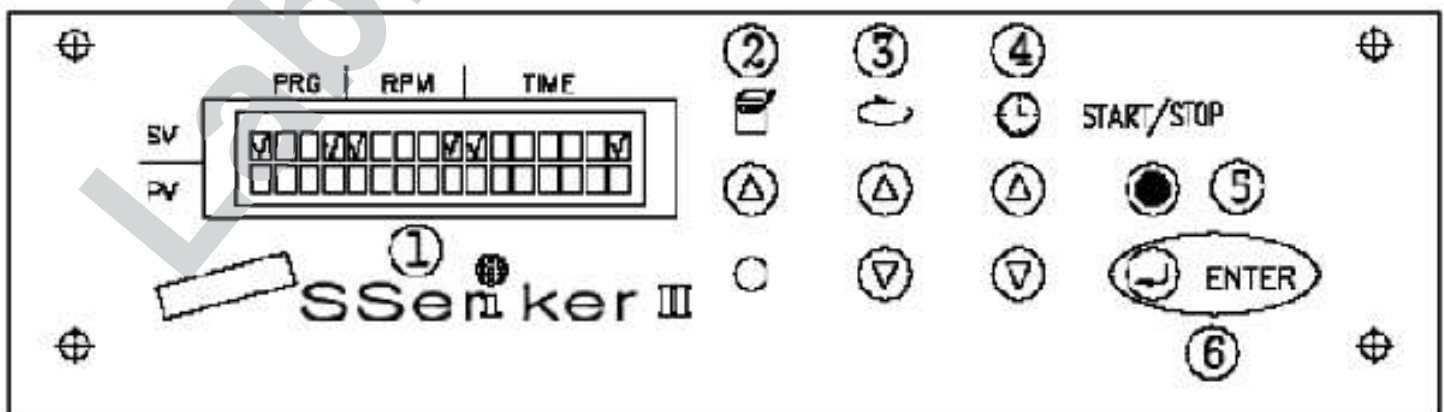
Place the shaker on the clean, dry, horizontal and vibration-free location. Don't move the shaker during the operation.

Power Connection

WARNING : Verify that the shaker's power matches your electrical source. Otherwise, it can cause an electric accident or a fire, and the shaker can be damaged.

- Check the rear panel of the shaker.
Check that the power switch is off and then connect the plug to the power point or connector.

CHAPTER 3. CONTROL ELEMENTS:



1. LCD Display

This display states numerically a PRG, SPEED, TIME

2. Program Control Button

This button is used when you select a program No.(0 4)using the Up button

3. Rpm Up/Down Button

These button are used when you set or change a desired Rpm Using Up/Down Button

4. Time Up/Down Button

These button are used when you set a desired time using the Time Up/Down Button

5. Start/Stop Button

This button is used to start and stop the shaker's operation

6. Enter Button

When the setting are completed press the Enter button

CHAPTER 4. OPERATION:

- Turn on the power switch on the rear panel of shaker.
- Place On/Off Button on "ON" position.
- Turn the Speed Control Button into the desired setting of RPM.
- The shaker begins an operation.

CHAPTER 5. SPECIFICATIONS:

Model	LGS-201A
Speed Range	0~350 rpm
Speed Accuracy	10 rmp
Mechanism	Beltless Direct Drive System
Motor	Brushless D.C. motor
Display	LED Digital Display (Speed & Time)
Timer	99hr.59min
Dimensions (W x D x H) mm	360 x 360 x 110, Overall height with plate: 120mm
Weight (kg)	16
Standard Plate	Plate with 250ml holder
Power	220V / 60Hz

CHAPTER 6. SAFETY AND PRECAUTION:

- The following precaution should be taken when operation or working near the shaker.
- Solvents and Flammable should not be used on or near the shaker.
- Hazardous sample should be shaken only in appropriate containment vessels.
- Service and repair must be performed only by qualified engineers.

CHAPTER 7. CARE AND MAINTENANCE:

WARNING: Disconnect the shaker from power source before attempting any cleaning or maintenance procedures.

- The shaker should be wiped down after use with a soft cloth.
- Do not immerse the shaker or pour liquids over it as electrical shock may occur. Clean up any spills immediately taking the precautions.
- If required the plate may be removed. The plate may then be cleaned with a mild detergent. Be sure the plate is thoroughly dry before replacing on the unit.
- The motor and shaking mechanism in the shaker require no routine maintenance or lubrication. To ensure a long life for the shaker.
- It should be used in a dry, non- aggressive environment.

CHAPTER 8. SERVICE REPORT

Customer's Address : _____ _____	Tel.No.: _____ Fax No.: _____ Weekly Off.: _____
Contact Person / Designation : _____	Dept.: _____

Date	Time		System Configuration	Model	Serial No.	Date :	SR. No.	
	From	To					Status : OK <input type="checkbox"/>	Not OK <input type="checkbox"/>
						Installation <input type="checkbox"/>	Warranty <input type="checkbox"/>	
						Demonstration <input type="checkbox"/>		
						Maintenance <input type="checkbox"/>	Contract <input type="checkbox"/>	
						Repairs <input type="checkbox"/>		
						Application <input type="checkbox"/>	Billable <input type="checkbox"/>	
						Calibration <input type="checkbox"/>		
						Validation <input type="checkbox"/>	Courtesy <input type="checkbox"/>	

Nature of Problem : _____

Observation & Action Taken : _____

Customer's Remarks : _____

Parts Replaced : _____

Parts Recommended / Action Required : Yes <input type="checkbox"/>	No <input type="checkbox"/>	Requisition Number :
Service Engineer's Name & Signature	Customer's Name, Signature, Date & Stamp	